

**CLAIMS**

1. A diesel exhaust filter system comprising :  
a carrier in the form of a tube or alike,  
5 said carrier having radially permeable parts,  
said system further comprising one or more porous filter strips,  
said strips being electrically conductive,  
said strips being wrapped around said carrier in a number of  
windings, said windings being separated from each other,  
10 said strips covering said radially permeable parts,  
said system further comprising insulation means to electrically  
insulate said windings from each other.
2. A system according to claim 1 wherein said carrier is a tube having  
15 perforations in said radially permeable parts.
3. A system according to claim 1 wherein said carrier is made of  
sintered stainless metal fibers.
- 20 4. A system according to claim 1 wherein said strips are metal fiber  
strips.
5. A system according to claim 2 wherein said insulation means  
25 comprise an inorganic porous fabric positioned between the carrier  
and the strips.
6. A system according to claim 2, said system further comprising a  
metal wire wrapped around said carrier and adapted to keep  
adjacent windings of the strips separated from each other.
- 30 7. A system according to any one of the preceding claims,  
said system further comprising electrical contacts at one end of said
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strips, said contacts enabling electrical energy be supplied to said strips in order to regenerate said strips.

- 5 8. A system according to claim 7 wherein said electrical contacts comprise a metal mesh.
9. A system according to claim 7 wherein said electrical contacts comprise a metal plate.
- 10 10. A system according to claim 8 wherein said metal mesh has been sintered to said strips.
11. A system according to claim 4 wherein said filter strips function as a substrate for a catalytic converter.
- 15 12. A system according to claim 4, said system further comprising metal fiber media which function as a substrate for a catalytic converter.
- 20 13. A system according to any one of the preceding claims, said system further comprising an electrode to ionize fine particles of the diesel exhaust gas so that said fine particles are caught by the strips or so that they conglobate together to be caught by the strips.
- 25 14. A system according to claim 1, said system further comprising thermal insulation means which cover at least said filter strips.

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